

Location	Nez Perce County, ID
Water body	Waha Lake
Ecological Provenance	Blue Mountain
Subbasin Name	Snake Hells Canyon
BPA Hydrologic Unit Code ID	4081
Hydrologic Unit Code, 6th Level	170601033005
Watershed Name	Lower Snake - Asotin, ID



Unique Characteristics

Waha Lake is a 37 ha (90 ac) natural lake on the northern foothills of Craig Mountain near Lewiston, ID. The Waha Lake complex is system of three hydrologically connected lakes: Waha Lake, Blue Lake (3 ha) and Mud Lake (3 ha). Waha Lake is operated as an off-stream irrigation storage reservoir and receives water pumped from West Fork of Sweetwater Creek.

Satellite imagery for this site includes Landsat 5, Landsat 7, and ASTER. Digital color aerial imagery was acquired on May 10, 2003 and July 11, 2003. Digital color infrared aerial imagery was acquired on September 10, 2002. Ancillary data includes topographic DRG's, DOQ's, watershed boundaries, and national land cover data.

Objective

The primary objective was to compare seasonal very-high resolution digital color and color infrared imagery of Waha Lake with satellite imagery and observe the effect of water quality on reflectance. A secondary objective was to observe the Waha Lake watershed land cover in the satellite imagery.

Results

Sediments and dissolved minerals impart a bluish-green color to Waha and Blue Lake. Mud Lake supports a seasonal bed of algae and macrophytes. The satellite imagery and aerial imagery show the characteristic color imparted by sediments and minerals in the water and allow direct comparison with the color of macrophytes and algae seen on the ground.

Land cover type, primarily forest, was directly interpreted from the Landsat and ASTER imagery. Regeneration of timber harvest areas is seen in a comparison of 1990 and 2002 Landsat imagery. Indications of residential structures could be seen in the ASTER imagery.